

SEQUENCE LISTING

<110> Reiter, Christian

<120> IMMUNOLOGICAL REAGENT SPECIFICALLY INTERACTING WITH THE
EXTRACELLULAR DOMAIN OF THE HUMAN ZETA CHAIN

<130> C1368 US

<140> 09/743,482

<141> 2001-02-28

<150> EP 98 11 2867.1

<151> 1998-07-10

<160> 54

<170> PatentIn version 3.2

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<212> DNA

<213> Rattus norvegicus

<220>

<221> CDS

<222> (1)..(33)

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1 5 10

33

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<211> 11

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<213> Rattus norvegicus

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<213> Rattus norvegicus

<220>

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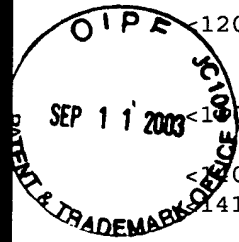
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agt gca acc agc ttg gca gac
Ser Ala Thr Ser Leu Ala Asp
1 5

21

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<213> Rattus norvegicus

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27

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<400> 6

Leu Gln Arg Tyr Ser Asn Pro Asn Thr
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30

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Gly Tyr Thr Phe Thr Ser Tyr Asp Met His
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 1 5 10 15

ggg 51
 Gly

<210> 10
 <211> 17
 <212> PRT
 <213> Rattus norvegicus

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Trp Ile Tyr Pro Gly Asn Gly Asn Thr Lys Tyr Asn Gln Lys Phe Asn
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Gly

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 <213> Rattus norvegicus

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 <222> (1)..(42)

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42

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 Asp Trp His Tyr Tyr Ser Ser Tyr Ile Arg Pro Phe Ala Tyr
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<210> 13
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 <212> DNA
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 <222> (1)..(369)

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48

tca gtg aaa att tcc tgc aag gct tct ggc tac aca ttc acc agt tac
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

96

gat atg cac tgg ata aaa cag cag cct gga aat ggc ctt gag tgg att
 Asp Met His Trp Ile Lys Gln Gln Pro Gly Asn Gly Leu Glu Trp Ile
 35 40 45

144

ggg tgg att tat cct gga aat ggt aat act aag tac aat caa aag ttc
 Gly Trp Ile Tyr Pro Gly Asn Gly Asn Thr Lys Tyr Asn Gln Lys Phe
 50 55 60

192

aat ggg aag gca aca ctc act gca gac aaa tcc tcc agc aca gcc tat
 Asn Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80

240

atg cag ctc agc agc ctg aca tct gag gac tct gca gtc tat ttc tgt
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

288

gca aga gat tgg cat tac tat agc agc tat atc cgt ccc ttt gct tac
 Ala Arg Asp Trp His Tyr Tyr Ser Ser Tyr Ile Arg Pro Phe Ala Tyr
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336

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 115 120

369

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 <211> 123
 <212> PRT
 <213> Rattus norvegicus

<400> 14

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ser
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Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

Asp Met His Trp Ile Lys Gln Gln Pro Gly Asn Gly Leu Glu Trp Ile
 35 40 45

Gly Trp Ile Tyr Pro Gly Asn Gly Asn Thr Lys Tyr Asn Gln Lys Phe
 50 55 60

Asn Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Arg Asp Trp His Tyr Tyr Ser Ser Tyr Ile Arg Pro Phe Ala Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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 <222> (1)..(321)

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48

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|---|---|-----|----|-----|
| gaa att gtc acg atc aca tgc cag gca agc cag gac att ggt aat tgg | | | | 96 |
| Glu Ile Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Gly Asn Trp | | | | |
| 20 | | 25 | 30 | |
| tta gca tgg tat cag cag aaa cca ggg aaa tct cct caa ctc ctg atc | | | | 144 |
| Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ser Pro Gln Leu Leu Ile | | | | |
| 35 | | 40 | 45 | |
| tat agt gca acc agc ttg gca gac ggg atc cca tca agg ttc agc ggc | | | | 192 |
| Tyr Ser Ala Thr Ser Leu Ala Asp Gly Ile Pro Ser Arg Phe Ser Gly | | | | |
| 50 | | 55 | 60 | |
| agt aga tct ggt aca cag tat tct ctt aag atc agc aga cta cag gtt | | | | 240 |
| Ser Arg Ser Gly Thr Gln Tyr Ser Leu Lys Ile Ser Arg Leu Gln Val | | | | |
| 65 | | 70 | 75 | 80 |
| gaa gat act gga atc tat tac tgt cta cag cgt tat agt aat ccc aac | | | | 288 |
| Glu Asp Thr Gly Ile Tyr Tyr Cys Leu Gln Arg Tyr Ser Asn Pro Asn | | | | |
| 85 | | 90 | 95 | |
| acg ttt gga gct ggg acc aag ctg gag ctg aaa | | | | 321 |
| Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys | | | | |
| 100 | | 105 | | |

<210> 16
 <211> 107
 <212> PRT
 <213> Rattus norvegicus

<400> 16

| |
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| Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Ala Ser Pro Glu |
| 1 5 10 15 |

| |
|---|
| Glu Ile Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Gly Asn Trp |
| 20 25 30 |

| |
|---|
| Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ser Pro Gln Leu Leu Ile |
| 35 40 45 |

| |
|---|
| Tyr Ser Ala Thr Ser Leu Ala Asp Gly Ile Pro Ser Arg Phe Ser Gly |
| 50 55 60 |

| |
|---|
| Ser Arg Ser Gly Thr Gln Tyr Ser Leu Lys Ile Ser Arg Leu Gln Val |
| 65 70 75 80 |

| |
|---|
| Glu Asp Thr Gly Ile Tyr Tyr Cys Leu Gln Arg Tyr Ser Asn Pro Asn |
| 85 90 95 |

Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
 100 105

<210> 17
 <211> 1637
 <212> DNA
 <213> artificial

<220>
 <223> Synthetic DNA Sequence

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 cactccgata tccagatgac acagtctcct gcttccttgt ctgcgtcccc ggaagaaatt 120
 gtcacgatca catgccaggc aagccaggac attggtaatt ggtagcatg gtatcagcag 180
 aaaccagga aatctcctca actcctgatc tatagtgcaa ccagcttggc agacgggatc 240
 ccatcaaggt tcagcggcag tagatctggt acacagtatt ctcttaagat cagcagacta 300
 caggttgaag atactggaat ctattactgt ctacagcgtt atagtaatcc caacacgttt 360
 ggagctggga ccaagctgga gctgaaaggt ggtggtggtt ctggcggcgg cggctccggt 420
 ggtggtggtt ctcaggtaca gctgcagcaa tctggagctg agctagtga gcttgggtcc 480
 tcagtga aaa tttcctgcaa ggcttctggc tacacattca ccagttacga tatgcactgg 540
 ataaaacagc agcctggaaa tggccttgag tggattgggt ggatttatcc tggaaatggt 600
 aatactaagt acaatcaaaa gttcaatggg aaggcaacac tcaactgcaga caaatcctcc 660
 agcacagcct atatgcagct cagcagcctg acatctgagg actctgcagt ctatttctgt 720
 gcaagagatt ggcattacta tagcagctat atccgtccct ttgcttactg gggccaaggc 780
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 tgggtacttcg atgtctgggg ccaagggacc acggtcaccg tctcctcagg tgggtggtggt 1200
 tctggcggcg gcggctccgg tgggtggtggt tctgagctcg tgatgacca gactccactc 1260
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gtacacagta atggaaacac ctatttacat tggtagctgc agaagccagg ccagtctcca 1380
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agtggatcag ggacagatatt cacactcaag atcagcagag tggaggctga ggatctggga 1500
gtttatttct gctctcaaag tacacatggt ccgtacacgt tcggaggggg gaccaagctt 1560
gagatcaaac gtacgactag ccatcaccat caccatcaca ctagctaatt aatttaagcg 1620
gccgctctag agtcgac 1637

<210> 18
<211> 532
<212> PRT
<213> artificial

<220>
<223> Synthetic Amino Acid Sequence

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Val His Ser Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Ala
20 25 30

Ser Pro Glu Glu Ile Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile
35 40 45

Gly Asn Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ser Pro Gln
50 55 60

Leu Leu Ile Tyr Ser Ala Thr Ser Leu Ala Asp Gly Ile Pro Ser Arg
65 70 75 80

Phe Ser Gly Ser Arg Ser Gly Thr Gln Tyr Ser Leu Lys Ile Ser Arg
85 90 95

Leu Gln Val Glu Asp Thr Gly Ile Tyr Tyr Cys Leu Gln Arg Tyr Ser
100 105 110

Asn Pro Asn Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gln Val Gln

| | | |
|---|-----|---------|
| 130 | 135 | 140 |
| Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ser Ser Val Lys | | |
| 145 | 150 | 155 160 |
| Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr Asp Met His | | |
| | 165 | 170 175 |
| Trp Ile Lys Gln Gln Pro Gly Asn Gly Leu Glu Trp Ile Gly Trp Ile | | |
| | 180 | 185 190 |
| Tyr Pro Gly Asn Gly Asn Thr Lys Tyr Asn Gln Lys Phe Asn Gly Lys | | |
| | 195 | 200 205 |
| Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu | | |
| | 210 | 215 220 |
| Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys Ala Arg Asp | | |
| 225 | 230 | 235 240 |
| Trp His Tyr Tyr Ser Ser Tyr Ile Arg Pro Phe Ala Tyr Trp Gly Gln | | |
| | 245 | 250 255 |
| Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Glu Val Gln | | |
| | 260 | 265 270 |
| Leu Leu Glu Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val | | |
| | 275 | 280 285 |
| Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr Gly Leu | | |
| | 290 | 295 300 |
| Ser Trp Val Lys Gln Arg Pro Gly Gln Val Leu Glu Trp Ile Gly Glu | | |
| 305 | 310 | 315 320 |
| Val Tyr Pro Arg Ile Gly Asn Ala Tyr Tyr Asn Glu Lys Phe Lys Gly | | |
| | 325 | 330 335 |
| Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Ser Met Glu | | |
| | 340 | 345 350 |
| Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys Ala Arg | | |
| | 355 | 360 365 |

Arg Gly Ser Tyr Asp Thr Asn Tyr Asp Trp Tyr Phe Asp Val Trp Gly
 370 375 380

Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
 385 390 395 400

Gly Gly Ser Gly Gly Gly Gly Ser Glu Leu Val Met Thr Gln Thr Pro
 405 410 415

Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg
 420 425 430

Ser Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu His Trp
 435 440 445

Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val
 450 455 460

Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser
 465 470 475 480

Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu
 485 490 495

Gly Val Tyr Phe Cys Ser Gln Ser Thr His Val Pro Tyr Thr Phe Gly
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Gly Gly Thr Lys Leu Glu Ile Lys Arg Thr Thr Ser His His His His
 515 520 525

His His Thr Ser
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 <212> DNA
 <213> artificial

<220>
 <223> Primer

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22

<210> 20
<211> 24
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<400> 20
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<210> 21
<211> 34
<212> DNA
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<220>
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<400> 21
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<210> 22
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<220>
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<210> 23
<211> 30
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<210> 30

<211> 53

<212> DNA

<213> artificial

<220>

<223> Primer

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<212> DNA

<213> artificial

<220>

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27

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<223> Primer

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| <211> 32 | |
| <212> DNA | |
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| <400> 44 | 32 |
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| <210> 45 | |
| <211> 32 | |
| <212> DNA | |
| <213> artificial | |
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| <210> 46 | |
| <211> 32 | |
| <212> DNA | |
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| <400> 46 | 32 |
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| <210> 47 | |
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| <400> 47 | 32 |
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<210> 51
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<220>
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<210> 52
 <211> 4
 <212> PRT
 <213> Rattus norvegicus

<220>
 <221> misc_feature
 <222> (2)..(3)
 <223> Xaa can be any naturally occurring amino acid

<220>
 <221> MISC_FEATURE
 <222> (4)..(4)

<223> Fourth amino acid can be Leu or Ile

<400> 52

Tyr Xaa Xaa Xaa

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<210> 53

<211> 6

<212> PRT

<213> Rattus norvegicus

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> First amino acid can be Ile or Val

<220>

<221> misc_feature

<222> (2)..(2)

<223> Xaa can be any naturally occurring amino acid

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<223> Xaa can be any naturally occurring amino acid

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Xaa Xaa Tyr Xaa Xaa Leu

1

5

<210> 54

<211> 11

<212> PRT

<213> artificial

<220>

<223> Antigen

<220>

<221> DOMAIN

<222> (1)..(11)

<223> N-terminal amino acids of the zeta chain

<400> 54

Gln Ser Phe Gly Leu Leu Asp Pro Lys Leu Cys

1

5

10